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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,976	11/05/2001	Milton B. Yatvin	99,297	7958

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 S. WACKER DRIVE
32ND FLOOR
CHICAGO, IL 60606

EXAMINER	
JIANG, SHAOJIA A	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/993,976	YATVIN ET AL.	
	Examiner	Art Unit	
	Shaojia A. Jiang	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,7-9 and 18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5,7-9 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to Applicant's amendment and response filed November 1, 2004 wherein claims 2, 6, 10-11, and 19 are cancelled and claims 1, 3-5, 7-9 and 18 have been amended. Claims 12-17 and 20-33 are cancelled previously.

Currently, claims 1, 3-5, 7-9 and 18 are pending in this application.

Claims 1, 3-5, 7-9 and 18 are currently under examination on the merits.

The following is new rejection(s) necessitated by Applicant's amendment filed on November 1, 2004.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-5, 7-9 and 18 as amended are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicant's amendment submitted November 1, 2004 with respect to amended claims has been fully considered but is deemed to insert new matter into the claims since the specification as originally filed does not provide support for "b) amino acid" "c)

two linker functional groups" and "d) a spacer" are separate components in the composition as claimed now. Nowhere can these separate components be found in the specification.

Consequently, there is nothing within the instant specification which would lead the artisan in the field to believe that Applicant was in possession of the invention as it is now claimed. See *Vas-Cath Inc. v. Mahurkar*, 19 USPQ 2d 1111, CAFC 1991, see also *In re Winkhaus*, 188 USPQ 129, CCPA 1975.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3-5, 7-9 and 18 as amended now are rejected under 35 U.S.C. 112, first paragraph, for scope of enablement because the specification, while being enabling for the particular and specific agent such as melatonin or serotonin conjugate with specific and particular spacer disclosed in the specification (see Figure 1 and Example 1 of the specification herein) in composition herein, does not reasonably provide enablement for those substances or compounds recited in claims 1 and 7 "a)", and amino acids in "b)", two linker functional groups and **a spacer**, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first end of the spacer through a first linker functional group and the drug

is attached to the second end of the spacer through a second linker functional group" recited in the claim 1 herein for example.

Regarding the active agents recited in claims 1 and 7, a skilled artisan would clearly recognize that these agents are known to have separate and patentably distinct structures, possessing very different physical, chemical, biological and physiological properties or activities; moreover, they are classified in different subclasses of class 514.

The instant specification fails to provide information that would allow the skilled artisan to fully practice the instant invention without ***undue experimentation***. Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation. Citing *Ex parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

(1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary.

The nature of the invention: The instant invention pertains to a pharmaceutical composition for use the particular treatment.

The relative skill of those in the art: The relative skill of those in the art is high.

The breadth of the claims: The instant claims are deemed very broad since these claims read on wildly varying agents or compounds encompassed by the claims.

The amount of direction or guidance presented:

Functional language at the point of novelty, as herein employed by Applicants, is admonished in *University of California v. Eli Lilly and Co.* 43 USPQ2d 1398 (CAFC, 1997) at 1406: stating this usage does "little more than outline goal appellants hope the recited invention achieves and the problems the invention will hopefully ameliorate". The CAFC further clearly states that "[A] written description of an invention involving a chemical genus, like a description of a chemical species, requires a precise definition, such as by structure, formula, [or] chemical name, of the claimed subject matter sufficient to distinguish it from other materials" at 1405(emphasis added), and that "It does not define any structural features commonly possessed by members of the genus that distinguish from others. One skilled in the art therefore cannot, as one can do with a fully described genus, visualize or recognize the identity of the members of the genus. A definition by function, as we have previously indicated, does not suffice to define the genus.." at 1406 (emphases added).

In the instant case, "two linker functional groups and **a spacer"**, recited in the instant claims are purely functional distinction. Hence, these functional recitations read on any compounds that might have the recited functions. However, the specification merely provides those particular compounds for the composition.

Thus, Applicants functional language at the points of novelty fails to meet the requirements set forth under 35 U.S.C. 112, first paragraph. Claims employing functional language at the exact point of novelty, such as Applicants', neither provide those elements required to practice the inventions, nor "inform the public during the life

of the patent of the limited of monopoly asserted" (*General Electric Company v. Wabash Appliance Corporation et al.* 37 USPQ at 468 (US Supreme Court 1938)).

The predictability or unpredictability: the instant claimed invention is highly *unpredictable* as discussed below:

It is noted that the pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. *In re Fisher*, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. In the instant case, the instant claimed invention is highly unpredictable since one skilled in the art cannot fully described genus, visualize or recognize the identity of the members of the genus, by structure, formula, or chemical name, of the claimed subject matter, as discussed above in *University of California v. Eli Lilly and Co.* Hence, in the absence of fully recognizing the identity of the members genus herein, one of skill in the art would be unable to fully predict possible physiological activities of any compounds represented by "two linker functional groups and **a spacer"** in the pharmaceutical compositions herein.

Further, as pointed out above, the agents recited in "a)" are deemed to encompass **varying compounds** that differ substantially in structure, classified across class 514, for example amantadine is classified in 514/579, whereas acyclovir 514/258 (see their structures provided by CAS STN Registry, PTO-892). Therefore, they are separate and patentably distinct compounds from the instant compounds recited in the claims.

Moreover, one of skill in the art would recognize that it is highly unpredictable in regard to therapeutic effects, side effects, and especially serious toxicity that may be generated by drug-drug interactions when and/or after administering to a host (e.g., human) any compounds represented by in "a" and "b" conjugated with functional groups an a spacer recited having a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first end of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group, broadly encompassing those known and unknown compounds, as well as those future known compounds, **requiring additional or future research to establish or verify their usefulness**.

See text book "Goodman & Gilman's The Pharmacological Basis of Therapeutics" regarding possible drug-drug interactions (9th ed, 1996) page 51 in particular. This book teaches that "The frequency of significant beneficial or adverse drug interactions is unknown" (see the bottom of the left column of page 51) and that "Recognition of beneficial effects and recognition of and prevention of adverse drug interactions require a thorough knowledge of the intended and possible effects of drugs that are prescribed" and that "The most important adverse drug-drug interactions occur with drugs that have serious toxicity and a low therapeutic index, such that relatively small changes in drug level can have significant adverse consequences" (see the right column of page 51) (emphases added). In the instant case, in the absence of fully recognizing the identity of the members genus herein, one of skill in the art would not be able to fully predict possible adverse drug-drug interactions occurring with many

combinations of any compounds having claimed functional properties in the pharmaceutical compositions herein to be administered to a host. Thus, the teachings of the book clearly support that the instant claimed invention is highly unpredictable.

The presence or absence of working examples and the quantity of experimentation necessary:

It is noted that only two particular agents, melatonin or serotonin conjugate with specific and particular spacer disclosed in the specification (see Figure 1 and Example 1 of the specification herein). Thus, the evidence in the examples is also not commensurate in scope with the claimed invention and does not demonstrate criticality of a claimed range of the active agents or compounds in the claimed composition.

Given the fact that any significant structural variation to a compound would be reasonably expected to alter its properties, e.g., physiological effects and functions. Moreover, it is well known that the activity of the compounds was structure-dependent, and vary in potency depending on structure. Therefore the enabling evidence for the particular compounds in the example herein in the specification is not deemed to represent each and every other compound encompassed by the claims.

Thus, the specification fails to provide sufficient support of the broad use of any compounds having those functions recited in the instant claims. As a result, necessitating one of skill to perform an exhaustive search for the embodiments of any compounds in "a" and "b" and a spacer recited in the instant claims suitable to practice the claimed invention.

Genentech, 108 F.3d at 1366, states that "a patent is not a hunting license. It is not a reward for search, but compensation for its successful conclusion" and "[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable".

Therefore, in view of the *Wands* factors, the case *University of California v. Eli Lilly and Co.* (CAFC, 1997) and *In re Fisher* (CCPA 1970) discussed above, to practice the claimed invention herein, a person of skill in the art would have to engage in *undue experimentation* to test all compounds encompassed in the instant claims and their combinations with a spacer in the claimed compositions to be administered to a host, with no assurance of success.

Applicant's arguments filed November 1, 2004 with respect to the rejection made under 35 U.S.C. 112, first paragraph of record in the previous Office Action June 17, 2004 have been considered but are moot in view of the new of rejection above.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3-5, 7-9 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, for same reasons of record stated in the Office Action dated June 17, 2004.

The recitations, "a physiologically-protected site", "two linker functional groups and **a spacer"**, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first end of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group" and "derivatives" render the claims indefinite.

These recitations, are not clearly defined in the specification. Hence, one of ordinary skill in the art could not ascertain and interpret the metes and bounds of the patent protection desired as to "a physiologically-protected site, two linker functional groups and **a spacer**, which could be many various structural groups with possibly numerous substitutents. As a result, any significant structural variation to a compound would be reasonably expected to alter its properties, e.g., physiological effects and functions. Thus, it is unclear as to what compounds herein would be encompassed thereby.

Further, the recitation "the amino acid or derivative thereof is 5-hydroxytryptophan, serotonin or melatonin" is not understood since both serotonin and melatonin are not amino acid (see their structures provided by CAS STN Registry, PTO-892).

Applicant's remarks filed on November 1, 2004 with respect to the rejection made under 35 U.S.C. 112, second paragraph of record in the previous Office Action have been fully considered but are not deemed persuasive. These remarks are believed to be adequately addressed by the rejection presented above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-5, 7-9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yatvin et al. (US 5,149,794, of record) in view of The Merck Index, Twelfth Edition, 1996, THER-17.

Yatvin (US 5,149,794) discloses a pharmaceutical composition comprising an antiviral drug broadly (see col.3 line 38-39) such as AZT, sphingosine, particular amino acids, a polar lipid carrier, and two linker functional groups and a spacer, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative i.e., tBc-NHAla-Ala- or -Gly-Gly-Gly-Gly-NH-, is attached to the first of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group (see particularly Fig.1-8; Examples 1-8; claims 1 and 7). Moreover, Yatvin clearly discloses that the instant spacer is a peptide for (amino acid)n formula, a polymer of a particular amino acid (see claim 6 in particular) i.e., tBc-NHAla-Ala- or -Gly-Gly-Gly-Gly-NH-.

Yatvin et al. also discloses that the instant spacer allows the drug to act without being released at an intracellular site or allows the facilitated hydrolytic release of the

drug at an intracellular site wherein the first linker functional group attached to the first end of the spacer is strong and the second linker functional group attached to the second end of the spacer is weak (see particularly claims 2-3 therein). Yatvin et al. also discloses that the instant first functional linker group is a hydroxy group, a primary or secondary amino group a phosphate group or a carboxylic acid group (see claims 8-9) and that the instant spacer is a peptide for (amino acid)n formula (see claim 6).

Yatvin does not expressly disclose the employment of the particular antiviral drug such as acyclovir in the composition herein.

The Merck Index, teaches that acyclovir is a well known antiviral drug.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ acyclovir in lieu of AZT in the composition herein.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ acyclovir in lieu of AZT in the composition herein, since both AZT (also known as zidovudine) and acyclovir are the same type of antiviral drug having the substantially similar function and known to be used in the treatment of viral infections according to The Merck Index. Thus, acyclovir and AZT (zidovudine) are known and art-recognized as interchangeable viral agents.

Claims 1, 3-5, 7-9 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yatvin et al. (5,543,389,of record) in view of The Merck Index, Twelfth Edition, 1996, THER-17.

Yatvin et al. discloses a pharmaceutical composition comprising an antiviral or an antiproliferative drug broadly such as the particular drug, methotrexate, and two linker functional groups and a spacer, amino acid or amino acid derivative i.e., tBc-NHAla-Ala- or -Gly-Gly-Gly-Gly-NH-, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group (see particularly Fig.1; Example 1; claims 1-24). Yatvin et al. also discloses that the instant spacer allows the drug to act without being released at an intracellular site or allows the facilitated hydrolytic release of the drug at an intracellular site wherein the first linker functional group attached to the first end of the spacer is strong and the second linker functional group attached to the second end of the spacer is weak (see particularly claims 10-11 therein). Yatvin et al. also discloses that the instant first functional linker group is a hydroxy group, a primary or secondary amino group a phosphate group or a carboxylic acid group (see claims 19-21) and that the instant spacer is a peptide for (amino acid)n formula (see claim 13).

Yatvin does not expressly disclose the employment of the particular antiviral or antiproliferative drug such as acyclovir in the composition herein.

The Merck Index, teaches that acyclovir is a well known antiviral drug.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ acyclovir in the composition herein as discussed above since acyclovir is a well known antiviral drug.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-5, 7-9 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Yatvin et al. (US 5,827,819).

Yatvin et al. discloses a pharmaceutical composition comprising a psychotopic, neurotropic or neurological drug such as the particular instant drugs, for example L-dopa, hydroxytryptamine, amantadine, benztropine, and levadopa as instantly claimed (see in particular claim 2 and 11), and two linker functional groups and a spacer, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group (see particularly Fig.1-6; Example 1-6; claims 1-12). Yatvin et al. also discloses that the instant spacer allows the drug to act without being released at an intracellular site or allows the facilitated hydrolytic release of the drug at an intracellular site wherein the first linker functional group attached to the first end of the spacer is strong and the second linker functional group attached to the second end of the spacer is weak (see particularly claims 4-5 therein). Yatvin et al. also discloses that the instant first functional linker group is a hydroxy group, a primary or secondary amino group a

phosphate group or a carboxylic acid group (see claims 7-9) and that the instant spacer is a peptide for (amino acid)n formula (see col.7 line 14-17 claim 12). Thus, Yatvin et al. anticipates Claims 1, 3-5, 7-9 and 18.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3-5, 7-9 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 5,149,794.

Although the conflicting claims are not identical, they are not patentably distinct from each other as discussed above in the 103(a) rejection.

Thus, the instant claims 1, 3-5, 7-9 and 18 are seen to be obvious over the claims 1-10 of U.S. Patent No. 5,149,794.

Claims 1, 3-5, 7-9 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-27 of U.S. Patent No. 5,543,389.

Although the conflicting claims are not identical, they are not patentably distinct from each other as discussed above in the 103(a) rejection.

Thus, the instant claims 1, 3-5, 7-9 and 18 are seen to be anticipated by the claims 1-27 of U.S. Patent No. 5,543,389.

Claims 1, 3-5, 7-9 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of U.S. Patent No. 5,827,819.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent are drawn to a pharmaceutical composition comprising a psychotopic, neurotropic or neurological drug such as the particular instant drugs, for example L-dopa, hydroxytryptamine, amantadine, benztropine, and levadopa (see in particular claim 2 and 11), and two linker functional groups and a spacer, wherein the spacer has a first end and a second end and wherein the amino acid or amino acid derivative is attached to the first of the spacer through a first linker functional group and the drug is attached to the second end of the spacer through a second linker functional group (see particularly Fig.1-6; Example 1-6; claims 1-12). Yatvin et al. also discloses that the instant spacer allows the drug to act without being released at an intracellular site or allows the facilitated hydrolytic release of the drug at an intracellular

site wherein the first linker functional group attached to the first end of the spacer is strong and the second linker functional group attached to the second end of the spacer is weak (see particularly claims 4-5 therein). Yatvin et al. also discloses that the instant first functional linker group is a hydroxy group, a primary or secondary amino group a phosphate group or a carboxylic acid group (see claims 7-9) and that the instant spacer is a peptide for (amino acid)n formula (see claim 12).

Thus, the instant claims 1, 3-5, 7-9 and 18 are seen to be anticipated by the claims 1-12 of U.S. Patent No. 5,827,819.

In view of the rejections to the pending claims set forth above, no claims are allowed.

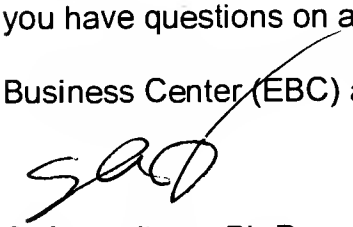
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (571)272-0627. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Anna Jiang, Ph.D.
Primary Examiner
Art Unit 1617
February 8, 2005